AUCKLAND PREHISTORY: A REVIEW

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Abstract. Archaeological excavations in the Auckland area are reviewed. The sites, which vary greatly in size and nature, include volcanic cones, fortified sites, unfortified settlements and coastal middens, dating between approximately A.D. 1300 and 1800. Chronological changes in material culture and subsistence are defined. It is concluded that horticulture, fishing and shellfish gathering formed the basis of the economy and that changes of material culture cannot readily be correlated with changes in other aspects of culture in prehistoric Auckland.

This paper reviews the prehistory of greater Auckland as revealed by excavations in the past 20 years. The region considered centres on the Auckland isthmus but includes the mainland as far north as South Kaipara Head and as far south as the Waikato Heads on the west coast, a comparable stretch of the east coast, and the inner islands of the Hauraki Gulf. It thus lies on the boundary between Skinner's (1921) Northern and Central Culture Areas, and as might be expected from its rather fragmentary traditional history, indicates pressures and influences from both. The archaeological remains, while exhibiting considerable diversity, also show some unifying features, particularly in material culture. It thus seems appropriate at this stage in our knowledge to review the prehistory of this relatively compact region within a single framework.

Almost 20 years have passed since the publication of Golson's influential theoretical paper which defined an Archaic and a Classic Maori Phase of New Zealand East Polynesian Culture and suggested possible sequences linking the two (Golson 1959). Relatively little progress has been made in establishing a New Zealand wide sequence, partly because of continuing attempts to combine economic and social change with the changes in material culture on which Golson based his paper. It has become increasingly apparent that attention should be directed towards regional sequences, and that what holds good in one region need not apply in another. In some parts of the country, however, regional sequences have also proved elusive, because of the lack of stratified sites, the diversity of site types, and the difficulties of arranging them in chronological sequence.

The Auckland area exemplifies these difficulties. Although quite a number of excavations have taken place, it is not possible to set out a satisfactory sequential account of what happened in Auckland during the last 1000 years. In the following discussion, therefore, the evidence is reviewed under several headings, most of which relate to site type. In this way, it is possible to see what kinds of activities were taking place in the region at various times. Because the relationship between "Archaic" and "Classic Maori" remains a major preoccupation of archaeologists, these terms are retained here to describe material culture, and Golson's definitions are broadly followed. It is a major thesis of this paper, however, that changes in economy and social structure cannot readily be combined with changes in material culture to establish an overall cultural sequence for the region.

Rec. Auckland Inst. Mus. 15: 1-14 1 December 1978

Sites with "Archaic" material culture

Assemblages of Archaic material come from three off-shore island sites, and one or more mainland sites on the southern shore of the Manukau Heads. With the exception of the last, whose remains are undated, none of these sites is likely to be older than A.D. 1300. It seems probable, therefore, that the earliest occupation of the greater Auckland area is as yet largely unknown.

Two stratified sites on Motutapu Island, Pig Bay (N38/21) and the Sunde Site (N38/24) have furnished important sequences. Motutapu Island was blanketed by fine volcanic ash, erupted from the adjacent volcano of Rangitoto at a point near the beginning of the known occupation of the area. The dating of this ash shower has proved difficult; the most likely age is mid-fourteenth century (Law 1975a). This is of great importance archaeologically, since the relevant Archaic artefacts are almost all stratified above the ash layer, and must therefore postdate it.

Principal activities at both sites seem to have been fishing and the manufacture of stone adzes. Both sites are situated in the northwest part of the island on small sandy flats adjacent to stream mouths. In each case a series of occupation layers is stratified between layers of windblown sand and water-laid volcanic ash redeposited from the surrounding slopes. Local greywacke, used for adze manufacture, outcrops nearby. Minor bands of cherts and jaspers exist in the greywacke and have been used for hammerstones. At the Sunde site, the earliest layer is stratified beneath a primary deposit of Rangitoto ash; carbon dates for this layer and the one above, however, suggest that the first occupation was immediately before the eruption, and that the site was reoccupied soon aferwards (Davidson 1974a).

The richer Pig Bay site provides the most detailed information on material culture. Its complex sequence may be summarised as follows.

Evidence of adze manufacture using local greywacke is found throughout the site, with particular concentrations in the early layers 15 and 13, and layers 8 and 5. Archaic adzes of Duff's (1956) Types 1A, 4A and 5 are present up to and including layer 8, in association with untanged quadrangular adzes and small flake adzes. Above layer 8, however, only roughouts of undiagnostic appearance and predominantly quadrangular section were found.

From the earliest layers (15 and 16) came a small assemblage of fishing gear comprising four broken bone one-piece hooks, a shell hook fragment, two bone points identical to the one-piece hooks in shape but perforated for attachment to the shank, two hook tabs and a dorso-ventrally perforated bone lure shank. Files and drill points were also found in these layers. Layers 14 to 12 yielded four one-piece bone hooks, one of which, although typically Archaic in shape, has ornamental notches on the outside of the shank, a hook tab centre, a broken stone lure shank which probably had a dorso-ventral perforation, and a shell point for a two-piece hook, elaborately notched for attachment to the shank. Other items from these layers were a drill point and three files, a bone needle, a piece of worked bone which could be a blank for an imitation whale tooth pendant and an elaborately flaked circular object which could be a blank for a stone pectoral amulet. From layer 8 came a number of fragments of shell fishhooks, one of which has decorative notching on the outer edge, four broken one-piece bone hooks, a large bone point fragment which may be either from a one-piece hook or a composite bait hook, some segments of *Dentalium nanum*, two bone lure shanks, one grooved, the other unfinished, a bird spear, a perforated seal tooth, and some files and drill points.

Above layer 8 very few items other than adze blanks were found. Bait hooks disappeared completely except for one shell point in layer 7. Three small grooved bone lure shanks were found in layers 7, 5 and 4, and one stone file in layer 5.

The essential points of this sequence are the association of bone and shell bait hooks throughout the lower half of the deposits, the replacement of the dorso-ventral lure with the grooved lure which continued almost to the top of the site, and the fact that the recognisably Archaic adzes are from the first half of the sequence, whereas evidence of adze manufacture by flaking is present throughout.

On the evidence of stratigraphy and radiocarbon dating, level 4 and the pre-Rangitoto ash deposit at the Sunde Site should be contemporary with or earlier than the lower part of the Pig Bay sequence (Davidson 1974a). The limited material includes a bird bone bead, parts of two one-piece bone hooks and one or two fishhook tabs, chert and greywacke drill points and a small collection of adze blanks including probable examples of Types 1A, 2A and 4, as well as examples with diamond-shaped cross-section (Davidson 1970a). The solitary complete adze cannot be classified according to Duff's typology. Level 3, with a grooved lure shank, a fishhook tab, files, drills and some 17 roughouts, still with a range of cross-sections, probably correlates with the middle of Pig Bay (layer 8). Level 2 with two quadrangular sectioned roughouts and some drill points and level 1 with only a partly drilled dog tooth may correlate with the upper levels at Pig Bay

The entire sequence at Pig Bay is bracketed in time between the eruption and a solitary radiocarbon date of A.D. 1670 ± 40 [all radiocarbon dates quoted in this paper are based on the old half life of C14 and have not been adjusted for secular effect]. A broad estimate for that part of the sequence which contains the more diagnostic Archaic material might be A.D. 1350 to 1500.

Within this general time range is probably to be associated Archaic material from a badly disturbed site at Motunau Bay on Ponui Island (N43/1), notably one-piece bone fishhooks, material relating to their manufacture, and two grooved stone lure shanks (Nicholls 1964).

It should be noted that the "Archaic" elements in these assemblages are largely restricted to adzes and fishhooks. Little is known of ornament forms, the only definite specimens being the bird bone bead from under the ash at the Sunde Site and the collection of dentalium units and perforated seal tooth from layer 8 at Pig Bay. The possible stone pectoral amulet and bone pendant from layer 13 at Pig Bay would strengthen the Archaic ornament content.

Knowledge of the Archaic occupation at Wattle Bay, Manukau South Head, rests largely on surface collections from eroding beach faces made over the years by a local resident. In this collection a very full range of Archaic material is represented, including a full adze kit with Types 1A, 2C, 3A, 3B, 4A and 5; a harpoon point, a fragment of a very large two-piece bone hook and a stone amulet of the kind described by Duff (1950: 110) as a hybrid reel. A controlled excavation in one site (N46-47/16) in this area revealed two thin cultural deposits beneath a very deep overburden of sand. An undiagnostic adze roughout, a finely polished, triangular-sectioned stone chisel, a fishhook blank, a file, drill points and chert and obsidian flakes were the only artefacts recovered (Ambrose 1961).

The diet of the inhabitants of these several "Archaic" sites is best described from the Sunde Site. The thin occupation layer beneath the Rangitoto ash contained remains of ten species of sea bird, six species of bush bird, two ducks and several extinct species including moa, crow and eagle. There were also tuatara, seals, dogs and large quantities of fish, mostly snapper (Scott 1970; and subsequent unpublished work by Davidson). The faunal remains decreased markedly in later layers, and although this must partly reflect changing conditions on the island and the disappearance of bush birds and extinct species after the eruption, it must also reflect changing activities, since sea birds, for example, must still have been available. Bones of whale, porpoise and moa were found at Pig Bay up to and including layer 8, but above this only dogs and seals (also present in earlier layers) were found. Bone remains at Motunau Bay included dog, rat and moa, with a limited range of sea and land birds.

The moa bones from the three off-shore island sites are largely or entirely of the category of "industrial moa bone" — bones that were brought to the islands for artefact manufacture, rather than actual food remains. Whereas the islands offered in other respects a full range of the same resources that were exploited for food in early sites throughout the country, it is unlikely that moas were found there at all. The most certain evidence of moa hunting in the Auckland area comes from Manukau South Head, where the association of man and *Dinornis* seems clear (Scarlett 1974).

Contemporary sites

The rather inconclusive evidence of radiocarbon dates suggests that occupation of several mainland sites was contemporary with the Motutapu Archaic sites. The mainland sites are very different in kind, however, and failed to produce any diagnostic artefacts from the relevant deposits.

A series of radiocarbon dates from a small living terrace on Wiri Mountain (N42/24) gives broad indications that this small part of a once much larger site may have been first occupied between A.D. 1200 and 1300 (Sullivan 1975) or at least as early as the beginning of the Archaic sequence on Motutapu Island. The interest of this site lies in the evidence for the construction of a stone-walled field boundary on the lower slopes of the volcanic cone before the construction and use of the living terrace. There are strong indications, therefore, that the beginnings of the extensive field systems once associated with most or all of the volcanic cones extend back to the beginning of the known sequence in the area.

A solitary date of A.D. 1430 ± 40 (Golson 1961) for an early point in the complex occupation history of a small part of Mount Wellington (N42/4), suggests that occupation here too began during the life of the Motutapu Archaic sites. Although the date in this instance is not clearly associated with horticultural activity, it is a not unreasonable assumption that occupation on the volcanic cones was intimately linked to the cultivation of their surrounding soils.

A third site whose sequence may partly overlap the Pig Bay and Sunde sites is Otakanini Pa (N37/37) at South Kaipara. Here, Period I, for which the recovered evidence consists of large rectangular and other storage pits, without associated artefacts, is dated to A.D. 1351 ± 78. The possibility that old timber was used must be borne in mind in considering a solitary date of this kind. It is, however, not inconsistent with a series of three dates bracketing the transition from Period II to III at the same site between A.D. 1493 ± 49 and 1653 ± 54 (Bellwood 1971, 1972, 1973). It is possible, therefore, that not only Period I but also Period II at Otakanini was broadly contemporary with the lower half of the sequence at Pig Bay. Defensive ditches were associated with the latter part of Period I and with Period II.

Two sites which may be contemporary with the upper part of the Pig Bay sequence are Rahopara Pa (N38/20) at Castor Bay (the nearest point on the mainland to Motutapu) whose earlier occupation has a date of A.D. 1572 ± 60 (Davidson 1974b) and Pawhetau Point (N43/59) on the mainland west of Ponui Island, from which human bone collagen returned a date of A.D. 1600 ± 80 (Fox 1974).

At Rocky Bay on Waiheke Island (N43/72) charcoal from an oven stratified beneath a deep deposit of agricultural made soil has been dated to A.D. 1540 ± 60 (Law 1975b).

These various dates suggest that horticulture, pit storage, and probably the construction of fortifications were contemporary in the Auckland area with the use of Archaic material culture on Motutapu Island.

Late sites

At this point it is appropriate to consider those sites which on the evidence of radiocarbon dates are later than the Motutapu Archaic sites. The most certain is Waioneke Pa (N37/25) somewhat north of Otakanini, whose entire sequence is bracketed between A.D. 1660 ± 95 (Period I) and the nineteenth century (McKinlay 1971). Waioneke yielded an artefact assemblage of acceptably Classic Maori type with affiliations to Otakanini Period III and several as yet undated sites such as Taylors Hill and Elletts Mountain.

Two sites at Motutapu probably date to the eighteenth century, although both have earlier conflicting radiocarbon dates as well. One is a headland pa (N38/25) and the other an open settlement (N38/37) on a broad ridge. Both are at Station Bay on the eastern side of the island. The pa, particularly, yielded material comparable in some respects to that from Waioneke (Davidson 1972).

A midden at Galatea Bay, Ponui Island (N43/33), dates to the late seventeenth or early eighteenth centuries (Moore & Tiller 1975) but contained almost no artefacts (Terrell 1967).

Important features of the Classic Maori material from Auckland are bone points from composite fishhooks, notched at the base and often barbed, tattooing chisels, bone needles, adzes of Duff's Type 2B, stone *patu* fragments, a perforated stone sinker, paua shell plates and shanks for trolling lures, toggles, simple bone pendants, greenstone adzes, chisels and pendants. Set out in this way, the material seems to be a good Classic Maori assemblage such as Golson defined. However, the numbers of items are very small and many are not really diagnostic. The principal differences between this material and the earlier Motutapu Archaic assemblage lie in the fishhooks and the absence of recognisably Archaic adzes. Yet the Classic assemblage does not include large numbers of 2B adzes and contains some undistinguished and unclassifiable fragments and roughouts which would not be out of place at Pig Bay.

Moreover, the difference in the nature of the sites from which the material comes, and the possibility of different activities in different seasons (including even different types of fishing) should not be overlooked. Finally, it must be said that the most convincing of these assemblages are late (almost certainly later than A.D. 1600) and their appearance seems to have little or no correlation with horticulture, settlement pattern or warfare in the Auckland district.

The volcanic cones

The Auckland volcanic cones have always been regarded as large and complex fortifications, and the impressive terracing of their slopes seen as largely defensive. Excavations on several, however, have yielded no evidence of supplementary defence in the form of palisades, except on the summit of Mount Roskill (Shawcross 1962), and it may be questioned whether defence was their major function. Ditch and bank earthworks on the crater rim of several, notably Mount Wellington and One Tree Hill, and particularly Mount Hobson (Fox 1977) show that in each case relatively small citadel areas were defended. The old view of all the terraces bristling with palisades and manned by huge populations of defending warriors is questionable.

Wherever excavations have been undertaken on volcanic cones (with the exception of Wiri Mountain) complex sequences of levelling of slopes and building and refilling of large rectangular storage pits have been revealed. Taylors Hill (N42/89), Mount Wellington (N42/4), Mount Roskill (N42/11) and Ellett's Mountain (N42/23) in turn have told a similar story, even where there was no surface evidence of such pits. That the cones were lived on, as well as used for storage, is clear from the enormous quantities of shell midden found on them. Little is known of dwellings, however, whose traces are difficult to find in the loose scoria. Stone-edged hearths have been reported from Mount Wellington, Mount Roskill, Elletts Mountain and Taylors Hill, but actual house plans have proved elusive.

Mount Wellington is the most intensively investigated volcanic cone. Three separate excavation programmes between 1960 and 1972 (all in response to imminent destruction of parts of the site) have investigated five different areas. An extensive area of the crater rim near the summit was found to have been artificially levelled but with little sign of actual occupation. This area can be seen as an assembly place or *marae*, or alternatively as a place prepared for occupation (by levelling which quite possibly destroyed earlier evidence) but on which occupation, for some reason, did not take place. Lower on the same part of the crater rim, the probable residence of a family group was revealed, consisting of a series of small storage pits, a cooking area, and some possible house sites. Rubbish from this unit had been thrown down the slope below. In contrast to both these areas, great complexity of occupational build-up was found at one of the lowest points of the crater rim. Here the rim had been artificially extended out into the crater, four large pits had been dug and one refilled and then partly cut away. The other three had eventually also been refilled and sealed with a sterile scoria layer. Only slight traces of cooking and scattered midden were found above this layer. Two large terraces below this part of the crater rim also revealed considerable artificial build-up and on the upper terrace a sequence of pit construction and refilling had probably been preceded by the construction of one or more houses on the terrace. Large quantities of midden were found in both these areas. Finally, a garden area low on the western slopes of the mountain was characterised by stone boundary walls, several large filled pits, and a single oven without associated midden remains.

The general outlines of occupation on the cones, then, are clear. Extensive cultivations were laid out on the volcanic soils surrounding the cones, and where these have not yet been completely destroyed it is clear that there was also considerable habitation (reflected by shell midden and evidence of structures) among the gardens. Storage of the crops and a considerable amount of habitation took place on the raised, well drained slopes of the cones themselves, while in some cases, at least, uppermost areas were fortified.

No analysis of midden from a volcanic cone has yet been published. Such middens consist largely of estuarine shellfish, sometimes with considerable amounts of fish bone. At Mount Wellington, dog and rat were present in some quantity but bird bone was rare and sea mammals absent.

Artefacts have not been numerous in excavations on volcanic cones. Needles, tattooing chisels, bone fishhook points, a bird spear, a toggle, a paua shell hook shank and assorted adzes (including two small nephrite examples from Taylors Hill) make up a small assemblage which is certainly different from Pig Bay, but hardly a rich example of Classic Maori. Among surface finds, two tiny scoria containers, one a figurine, are of particular interest (Fox 1977).

The series of dates for Wiri Mountain gives a general indication of the length of occupation of part of this one site (Sullivan 1975). It is very likely that the visible remains on all these sites today is best interpreted as a long series of shifting occupations, perhaps covering the greatest part of the prehistoric sequence of the area, and contemporary with a variety of other components.

Fortified sites

In striking contrast to the volcanic cones with their depth and complexity of occupation are two headland pa on the northern side of the Waitemata. Limited test excavations on Onewa Pa (N42/27) at Kauri Point, Birkenhead, suggested that it had been occupied only once, and relatively briefly. This site has splendid natural defences in the form of sheer cliffs around almost all sides, and required only the addition of a ditch and bank across the narrow neck. This advantage, however, was apparently outweighed by the lack of good soil in the vicinity. No storage pits were found on the pa, and it would seem that cultivations were not possible, or not deemed worthwhile, in its vicinity. Traditionally it was a fishing pa, but in this capacity it evidently attracted only brief occupation, not repeated.

Rahopara Pa (N38/20) at Castor Bay is on similar soils, but here horticulture evidently was attempted, for there are storage pits. There is also slightly more evidence of habitation. An extensive settlement, not necessarily fortified, occupying most or all of a peninsula is dated at A.D. 1572 ± 80 (Davidson 1974b). This initial occupation is characterised by large and small storage pits, a cooking area with earth ovens and possibly shelters represented by stake holes, and an accumulation of shell midden to a depth of 30 cm in places. At a later date one corner of the site was converted into a headland pa by construction of a substantial ditch and bank (Green 1970).

Several other pa have more complex histories. As noted above, Otakanini may have been occupied several times over a long period, with substantial rectangular storage pits present from the earliest occupation. There are three stages of the defensive system (Bellwood 1971, 1972). At Waioneke, dating to the seventeenth century or later, use of the site began with a series of large storage pits without associated living debris. Two later occupations reflect the construction of ditch and bank defences and further storage pits, followed by construction of more massive defences and intense habitation without storage pits (McKinlay 1971). Large quantities of shell midden were present at both Otakanini and Waioneke.

The Station Bay Pa (N38/25), a relatively small headland pa on Motutapu Island, has a similar history to Waioneke, beginning with the construction of a group of pits without associated living debris. This was transformed into a pa by the addition of a substantial ditch with an internal palisade across the neck of the headland. The history of the site as a pa appears to encompass an earlier phase when further pits were constructed, and a final phase when the palisade was renewed and there was intensive occupation without associated pits (Davidson 1972, Sullivan 1972).

Complexity was also revealed in excavations at a ridge pa at Orakei (N42/201). The site contained intercutting storage pits of various kinds, but its principal find was a clear and well preserved house floor, 16 x 10 feet (4.9 x 3 m), complete with hearth (L. M. Groube pers. comm. to R. C. Green, 1967). This remains the best example to date of a prehistoric Auckland house.

Considerably further south, an undated site at Maioro (N51/5) revealed two main occupations, both with storage pits of various sizes. Defence at this site depended on scarp and palisade; there is no excavated evidence of a defensive ditch (R. C. Green pers. comm.). The site yielded few artefacts other than obsidian flakes. Several adzes can be considered Classic Maori in type.

"Undefended" sites

Just as the fortified sites display considerable diversity, from the simplicity of Onewa Pa to the complexity of Otakanini, the undefended components vary greatly in size, complexity and even in kind.

Simplicity and specialisation are exhibited by a small storage component at Alberon Park (N42/114), Parnell, where two rectangular pits and possibly a raised storage structure represented by postholes were not associated with any evidence of habitation (Law 1970). Bald Hill (N46-47/22) in South Auckland is a similar but larger site. Restricted excavation uncovered plans of a very large pit and two associated much smaller ones (Allo & McKinlay 1971). Whereas excavations at Bald Hill were so restricted that they may have failed to reveal evidence of other activities nearby, the isolation of the storage unit at Alberon Park was confirmed by inspection of the ridge following removal of topsoil in preparation for quarrying.

Other sites, however, whose surface evidence consists largely or wholly of pits have been found when excavated to contain evidence of a wider range of activities. Three sites provide a glimpse of life in unfortified hamlets. Two are at Station Bay on Motutapu Island, one at Hamlins Hill (N42/137) on the mainland. At all three sites, storage pits were associated with cooking and dumping areas and evidence of tool manufacture and use. Houses were found at one Motutapu site and at Hamlins Hill; isolated burials were discovered in both Motutapu sites.

A convincing reconstruction of occupation on one terrace on a ridge at Station Bay (N38/30) has been made on the basis of excavation (Leahy 1970, 1972). A house and two storage pits were set out around a small open space, with a cooking area to one side. A well beaten path wound up through this complex to other parts of the settlement further up the ridge. In this case, the long narrow ridge had concentrated one domestic unit on one terrace, a simplicity that was not achieved at the other two sites under consideration because they are both on relatively flat broad areas of ridge or hilltop.

The second Station Bay site (N38/37) revealed a series of pits of various kinds, mostly contemporary, but with at least one earlier than the main group and one possibly later. No houses were found in the excavated area, but there was abundant evidence of cooking and living on the site in the form of midden, oven debris and a range of rather undiagnostic artefacts (Davidson 1970b).

Hamlins Hill, still under excavation, also contains houses, storage structures and evidence of cooking and dumping. During the period the site was occupied, the focus of activity shifted several times and at least three phases of activity can be detected in some parts of the site. With its houses, drains, and fences dividing the settlement, Hamlins Hill provides the best evidence of settlement lay-out of any site yet investigated in Auckland. The continuing excavations have been reported by several different writers (Davidson 1970c, Irwin 1975, Pearce 1975, 1977).

The artefact assemblages from these sites include flakes of obsidian and other stone, hammerstones and grindstones, and stone adzes which are untanged but hardly typical 2B. Greater wealth is merely hinted at by a few fragments — a tattooing chisel from one site, a broken fishhook point and the tiny fragment of a greenstone pendant from another. No real distinction can be drawn between the sparse and undiagnostic collections from these sites and the equally restricted collections from the volcanic cones, particularly Mount Wellington.

In the absence of precise dates these sites could be assigned with equal reason to almost any point in the sequence. One of the Station Bay sites (N38/37) as noted above is almost certainly eighteenth century in date. A single radiocarbon date on bone collagen suggests that the other, N38/30, may be several centuries earlier. There is no date as yet for Hamlins Hill.

A very different type of undefended site is Galatea Bay (N43/33) on Ponui Island. Like the Motutapu Archaic sites it is a midden on a small flat by a stream mouth, but its content is very different from all but the latest layers of the Motutapu sites. The deposit was shallow, and reflected only cooking and dumping activities. The midden consisted of shellfish and fish, with a few bones representing one human and one dog. The site has been interpreted as probably occupied by a small group of people for not more than three months in the summer, who were engaged in fishing and shellfish gathering, and preserving at least part of their fish catch for later consumption elsewhere (Shawcross 1967). The only artefacts apart from some possibly used shells were two broken adzes used as oven stones, an adze flake and what is probably the shell tip of a composite fishhook very similar to an example from a cave site at Manukau North Head (Terrell 1967). The apparently late age of Galatea Bay is confirmed by two radiocarbon dates suggesting a late seventeenth or early eighteenth century date.

Discussion

The above review of excavated evidence from the Auckland region demonstrates the diversity of site components and the difficulties of precisely grouping them, points made by several previous writers (e.g. Green & Shawcross 1962, Green 1963, Terrell 1967). Yet despite the difficulties of dating sites, certain chronological changes can be observed. First, however, the archaeological landscape in which the excavated sites exist should be briefly considered.

The development of a large modern conurbation centred on the Auckland isthmus has utterly obliterated an unknown but significant part of the Auckland archaeological landscape. In some peripheral parts of the region, however, large numbers of prehistoric sites have survived into the second half of the twentieth century and it is possible to gain a better appreciation of the proportions and distribution of various kinds of sites. Motutapu Island is a good example. Here there are 12 pa, 14 beach middens including Pig Bay and the Sunde Site, and probably more than 300 "undefended" sites varying from isolated pits to extensive settlements. It is in this context that the five excavated sites on the island must be viewed. Clearly the Archaic middens are unusual in this landscape, whereas the two excavated undefended settlements at Station Bay are a very small sample of what is overwhelmingly the most common form of archaeological evidence on the island. The sheer number of these sites, moreover, suggests that they must have been built over a considerable period of time — probably throughout the 400 or 500 years following the Rangitoto eruption. Motutapu is not unique. A similar picture was revealed by an intensive survey of the eastern parts of Waiheke Island. Even at South Kaipara, noted for its pa sites, unfortified sites far outnumber them.

On the Auckland isthmus much occupation undoubtedly centred on the volcanic cones. Indeed the proportion of undefended to defended sites can be seen to be rather similar to Motutapu if the terraced slopes and surrounding gardens are taken as "undefended" and only the ditched citadels regarded as fortified. Alberon Park reminds us that there were other sites on the isthmus — an unknown number — but the amount of prehistoric effort put into sites such as Alberon Park or Onewa Pa was surely negligible compared with that devoted to the volcanic cones and their immediate surroundings.

The distinction between volcanic cones, other fortified sites and undefended sites is useful to archaeologists, but in terms of prehistoric life can be misleading. The bulk of the archaeological evidence in the Auckland region relates to the everyday activities of people who were horticulturalists, fishers and shellfish gatherers, and who sometimes fortified their settlements or built citadels.

A remarkable feature of the Auckland sequence is its dating, as understood at present. The bottom layers of Pig Bay and the Sunde Site are similar to some of the earliest sites known elsewhere in the country. If they really date to the fourteenth or fifteenth century they require the prehistory of the region to be compressed into 500 years or less. A rather similar situation exists in the Coromandel, however, and there is as yet little evidence for occupation of the northern half of the North Island until long after more southern parts of the country had been settled.

Within the 500 year period for which we have good evidence several major changes can be observed. There is a change through time from the exploitation of a wide range of birds and other animals to a consistent reliance on fish and shellfish for protein. The wide range of species, however, was really evident only in the lowest layer at the Sunde Site and thereafter birds became relatively unimportant, even in deposits with what still appears to be an Archaic material culture. There is as yet no evidence that moas were ever important as food in the Auckland area, although discovery of sites dating earlier than the fourteenth century could reverse this opinion, since moas were naturally present in the area in earlier times. The change was accomplished quickly. The predominance of fish and estuarine shellfish is found not only in what may be specialised food processing sites such as Galatea Bay but in the undefended sites both on the mainland and on the islands, on the smaller pa throughout the district and on the volcanic cones. It appears that the bulk of the protein food of Auckland Maoris came from fish and shellfish, at least from about A.D. 1400.

It is also evident that horticulture, reflected by field systems, flourished from the beginning of the known sequence. The date of appearance of storage pits is less certain, but the evidence from Otakanini suggests that they, too, may have been present from the beginning of the known sequence. Horticulture and fishing, then, were the basis of the economy for several centuries.

Within the 500 year period, there were also significant changes in material culture. One-piece bait hooks which even in the early layers of Pig Bay were sometimes made from mammal rather than moa bone, dropped out in favour of the two-piece composite bait hook with bone or shell point and wooden shank, already foreshadowed in the shell hooks at Pig Bay. There is so far no sign of the small highly decorated Classic Maori one-piece hooks known from the Bay of Plenty. Trolling lures followed the Archaic style for longer, with the grooved lure shank replacing the dorso-ventral forms and continuing in use probably very late in the sequence, as it did in the Bay of Plenty and the East Coast. Evidence for the kahawai lure is slight and confined to the most recent sites.

The standard Archaic adze types eventually gave way to the Classic Maori 2B, but throughout the sequence local rocks were worked to produce nondescript but probably functional adzes which form a local tradition separate from either the distinctive Archaic types or the Classic 2B, both of which appear to have originated outside the region.

Very little is known about ornaments, neither the more notable Archaic forms nor the typical Classic Maori forms being represented so far. Auckland people were careful of their ornaments, if they had them, and seldom left them around for later generations to find. Dentalium units, bird bone beads, simple bone and tooth pendants could be of any age. The solitary greenstone pendant fragment for Motutapu probably dates to the middle of the sequence rather than the end.

Stone *patu* appear to be a significant late feature and are so far known only from the South Kaipara sites. Again it seems certain that they were invented elsewhere.

Thus one is led to conclude that although Auckland towards the close of prehistory had what might pass as a rather poor version of Classic Maori material culture, Auckland Maoris had little or no part to play in its development. All of the more striking elements appear to have developed elsewhere and reached Auckland by a process of diffusion.

Most difficult to document are changes in society. The large numbers of sites and their variations in size probably mean that no satisfactory account of social organisation in prehistoric Auckland, based on archaeological evidence, can ever be achieved. Related groups evidently banded together and separated again into minimal units depending on changing circumstances.

Warfare is another little understood factor in Auckland life. The late appearance of stone *patu* need have nothing to do with the development of warfare and fortifications. The evidence from Otakanini suggests that warfare and fort building were relatively early in the sequence. If so, however, warfare was sporadic, and its advent did not herald the permanent removal of the population into fortified sites, since so much of the landscape is taken up by undefended sites. A major problem for the future is to determine whether episodes of stress resulting in fort building increased significantly through time.

Conclusion

The above discussion has been concerned with change and the development from Archaic to Classic Maori. It has been possible to demonstrate that there was a change in material culture, although not a dramatic or striking one, and there was a change in some aspects of economy, from broader hunting to a concentration on fishing and shellfish gathering. It is also possible, however, to look at the prehistory of Auckland and see continuity. The early hunting is reflected in only a minute sample of the total archaeological evidence. Fishing and shellfish gathering are attested in many hundreds of archaeological sites representing the great bulk of the total evidence and reflecting centuries of activity. The continuing emphasis on horticulture has been stressed already. Prehistoric life in Auckland, then, can be seen to centre on a continuing round of activities relating to horticulture, the clearance of new gardens, the movement of settlements, the return to former gardens, and the renewal of settlements. Groups grew, fragmented and reunited. At times of stress, fortifications were built, but for much of the time people lived in unfortified settlements. In the short term, there were changes from large to small settlements and back again, from pa to open settlement and back again. In the long term, a similar way of life was maintained for centuries. Against this stability a few changes in the fashions of fishhooks and adzes — the change from Archaic to Classic Maori — can be seen to be of minor significance.

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